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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,790	09/03/2002	Juan Alberto Torres	042159/0117	4762

7590 12/15/2004

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Buffalo, NY 14228

EXAMINER

LAMARRE, GUY J

ART UNIT	PAPER NUMBER
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2133

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/744,790

Applicant(s)

TORRES ET AL.

Examiner

Guy J. Lamarre, P.E.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16-27 and 29-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16-27, 29-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/3/02 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

0. **Claims 15, 28** are missing. Thus, pursuant to 35 USC 131, **Claims 1-14, 16-27, 29-32** are presented for examination.

Claim Objections

1. **Claims 1, 16** should recite: "said multiple concatenated..." instead of "all of the concatenated..."

Claims 1, 16, 19, 21, 29, 32: it is not clear to the Examiner what is meant by: 'a single type that is one of convolutional and non-convolutional.'

Claims 12, 24 do not further limit resp. **Claims 1, 21.** Appropriate correction is required.

Specification

2. The Abstract shall not textually recite claim limitations along with 'comprising' language. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3.1 **Claims 1-14, 16-27, 29-32** are rejected under 35 U.S.C. 102 (e) as being anticipated by **Kobayashi et al.** (US Patent No. 6,029,264; Filed: April 28, 1997).

As per **Claims 1-14, 16-27, 29-32, Kobayashi et al.** anticipates the claimed invention because disclosed in Fig. 12C below and Fig. 5 and associated description in col. 1 line 25 et seq., is a recursive turbo product coding concatenation procedure wherein plural serial/parallel

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concatenated coding configurations process data streams comprising 1st code, 2nd and 3rd codes, such as Extended Hamming codes, RS codes, QAM/PAM, DTM, along with data/parity permutation means.

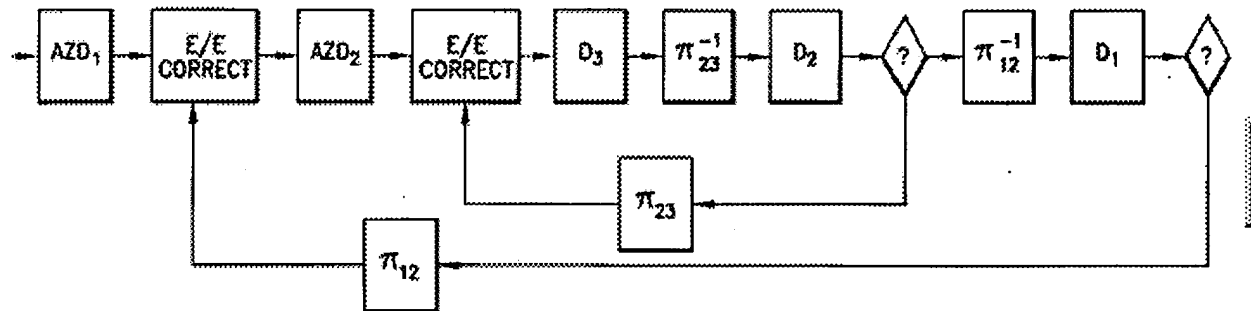


FIG. 12C

3.2 Claims 1-14, 16-27, 29-32 are rejected under 35 U.S.C. 102 (b) as being anticipated by Mitauaki Oshima (EP 0 617 531 A).

As per Claims 1-14, 16-27, 29-32, Oshima anticipates the claimed invention because disclosed in page 2, line 43 to last line, is a recursive turbo product coding concatenation procedure wherein plural serial/parallel concatenated coding configurations process data streams comprising 1st code, 2nd and 3rd codes, such as Extended Hamming codes, RS codes, QAM/PAM, DTM, along with data/parity permutation means.

3.3 Claims 1-14, 16-27, 29-32 are rejected under 35 U.S.C. 102 (b) as being anticipated by Paik et al. (US PAT. NO. 5,321,725; 14 Jun. 1994).

As per Claims 1-14, 16-27, 29-32, Paik et al. anticipates the claimed invention because disclosed, in col. 7 lines 40-61, col. 17 line 64 through col. 18. line 7 and depicted in Figs. 1, 11, is a recursive turbo product coding concatenation procedure wherein plural serial/parallel concatenated coding configurations process data streams comprising 1st code, 2nd and 3rd codes, such as Extended Hamming codes, RS codes, QAM/PAM, DTM, along with data/parity permutation means.

3.4 Claims 1-14, 16-27, 29-32 are rejected under 35 U.S.C. 102 (b) as being anticipated by **Betts et al.** (US PAT. NO. 4,677,626; 30 Jun. 1987).

As per **Claims 1-14, 16-27, 29-32, Betts et al.** anticipates the claimed invention because disclosed, in col. 1 line 22 - col. 2 line 68 and depicted in Figs. 1-2, is a recursive turbo product coding concatenation procedure wherein plural serial/parallel concatenated coding configurations process data streams comprising 1st code, 2nd and 3rd codes, such as Extended Hamming codes, RS codes, QAM/PAM, DTM, along with data/parity permutation means.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

4.1 Any response to this action should be mailed to:

Commissioner of Patents and Trademarks, Washington, D.C. 20231

or faxed to: (703) 872-9306 for all formal communications.

Hand-delivered responses should be brought to Customer Services, 220 20th Street S., Crystal Plaza II, Lobby, Room 1B03, Arlington, VA 22202.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guy J. Lamarre, P.E., whose telephone number is (571) 272-3826. The examiner can normally be reached on Monday to Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert De Cady, can be reached at (571) 272-3819.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-3609.

Information regarding the status of an application may also be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Guy J. Lamarre, P.E
Primary Examiner
12/11/04
